

We claim:

1. A method for treatment of an apoptosis-related disease in a subject comprising administering to said subject a therapeutically effective amount of an inhibitor of the WWP1 polypeptide, in a dosage sufficient to inhibit WWP1 so as to thereby treat the subject.
2. A method according to claim 1 wherein the inhibitor is administered in conjunction with a chemotherapeutic agent.
3. A method according to claim 1 wherein the inhibitor is an antibody.
4. A method according to claim 1 wherein the inhibitor is an AS fragment comprising consecutive nucleotides having the sequence set forth in SEQ ID NO:3.
5. A method according to claim 1 wherein the apoptosis-related disease is a cancer.
6. A method for potentiating a chemotherapeutic treatment of an apoptosis-related disease in a subject comprising administering to said subject a therapeutically effective amount of an inhibitor of the human WWP1 polypeptide in conjunction with a chemotherapeutic agent.
7. A method according to claim 6 wherein the inhibitor is an antibody.
8. A method according to claim 6 wherein the inhibitor is an AS fragment comprising consecutive nucleotides having the sequence set forth in SEQ ID NO:3.
9. A method according to claim 6 wherein the apoptosis-related disease is a cancer.

10. An antisense oligonucleotide capable of inhibiting the expression of the WWP1 polypeptide, having the sequence set forth in SEQ ID NO:3.
11. An expression vector comprising a nucleic acid molecule encoding the antisense oligonucleotide of claim 10.
12. A process for determining the susceptibility of a subject to a chemotherapeutic treatment of an apoptosis-related disease comprising:
- 10 (a) providing the average, normal level of the WWP1 polypeptide in the cells of healthy subjects;
- (b) determining the level of the WWP1 polypeptide in said subject;
- (c) comparing the levels obtained in (a) and (b) above, a low
15 level of WWP1 polypeptide in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to a chemotherapeutic treatment of said apoptosis-related disease.
- 20 13. A process for determining the susceptibility of a subject to a chemotherapeutic treatment of an apoptosis-related disease comprising:
- (a) providing the average, normal level of mRNA encoding the WWP1 polypeptide in the cells of healthy subjects;
- (b) determining the level of mRNA encoding the WWP1
25 polypeptide in said subject;
- (c) comparing the levels obtained in (a) and (b) above, a low level of mRNA encoding WWP1 in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to a chemotherapeutic
30 treatment of said apoptosis-related disease.
14. A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

- (a) determining the level of the WWP1 polypeptide in the subject prior to a treatment;
- (b) determining the level of the WWP1 polypeptide in the subject after the treatment;
- 5 (c) comparing the levels obtained in (a) and (b) above, a high level of WWP1 polypeptide prior to the treatment as compared to the level after the treatment indicating efficacy of the treatment.

10 15. A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

- (a) determining the level of the WWP1 mRNA in the subject prior to a treatment;
- 15 (b) determining the level of the WWP1 mRNA in the subject after the treatment;
- (c) comparing the levels obtained in (a) and (b) above, a high level of WWP1 mRNA prior to the treatment as compared to the level after the treatment indicating efficacy of the treatment.

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16. A process of diagnosing a cancer in a subject comprising:

- (a) providing the average, normal level of the WWP1 polypeptide in the cells of healthy subjects;
- (b) determining the level of the polypeptide in said subject;
- 25 (c) comparing the levels obtained in (a) and (b) above, wherein a high level of the WWP1 polypeptide in said subject as compared to the level in healthy subjects is indicative of a cancer.

30 17. A process of diagnosing a cancer in a subject comprising:

- (a) providing the average, normal level of a polynucleotide encoding the WWP1 polypeptide in the cells of healthy subjects;

- (b) determining the level of the polynucleotide in said subject;
- (c) comparing the levels obtained in (a) and (b) above, wherein a high level of the polynucleotide in said subject as compared to the level in healthy subjects is indicative of a cancer.

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18. A process for obtaining a compound which modulates apoptosis in a cell comprising:

- 10 (a) providing cells which express the human WWP1 polypeptide;
- (b) contacting said cells with said compound; and
- (c) determining the ability of said compound to modulate apoptosis in the cells.

19. A process according to claim 18 comprising:

- (a) providing test cells and control cells which express the human WWP1 polypeptide at a level at which approximately 50% of the cells undergo apoptosis in the presence of an apoptosis-stimulating agent;
- 20 (b) contacting said test cells with said compound;
- (c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell; and
- (d) determining the ability of said compound to modulate apoptosis in the test cell.

20. A process for obtaining a compound which promotes apoptosis in a cell comprising:

- 30 (a) providing a test cell which expresses the human WWP1 polypeptide and a control cell which does not express the human WWP1 polypeptide;
- (b) contacting said cells with said compound;

- (c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell but not in the test cell in the absence of said compound; and
 - 5 (d) determining the ability of said compound to promote apoptosis in the test cell.
21. A process for obtaining a compound which modulates apoptosis through the human WWP1 polypeptide comprising:
- 10 (a) measuring the activity of the human WWP1 polypeptide, or a fragment thereof having viability activity,
 - (b) contacting said polypeptide or fragment with said compound; and
 - (c) determining whether the activity of said polypeptide or
15 fragment is modulated by said compound.
22. A process for obtaining a compound which modulates apoptosis through the human WWP1 polypeptide comprising:
- (a) measuring the binding of the human WWP1 polypeptide, or
20 a fragment thereof having viability activity, to a species to which the human WWP1 polypeptide interacts specifically *in vivo* to produce an anti-apoptotic effect;
 - (b) contacting said polypeptide or fragment with said compound; and
 - 25 (c) determining whether the activity of said polypeptide or fragment is affected by said compound.